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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,175	11/18/2003	Dawei Chen	API-0002	3903
23413	7590	04/28/2004	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			AULAKH, CHARANJIT	
			ART UNIT	PAPER NUMBER
			1625	

DATE MAILED: 04/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Charanjit S. Aulakh

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 6, 7, 9, 10, 13, 14, 17, 18, 20, 21, 40-67, 71-82 and 87 is/are pending in the application.
- 4a) Of the above claim(s) 7, 40-56, 58-64 and 73-80 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6, 9, 10, 13, 14, 17, 18, 20, 21, 57, 65-67, 71, 72, 81 and 82 is/are rejected.
- 7) ☒ Claim(s) 87 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

### **DETAILED ACTION**

1. According to a preliminary amendment filed on Feb. 27, 2004, the applicants have canceled claims 3-5, 8, 11, 12, 15, 16, 19, 22-39, 68-70, 83-86 and 88-90 and furthermore, have amended claims 6, 7, 9, 10, 13, 17, 20, 40, 41, 43, 44, 46-50, 52, 54, 55, 58, 61, 64, 71, 72, 75-79 and 82.
2. Claims 1, 2, 6, 9, 10, 13, 14, 17, 18, 20, 21, 40-67, 71-82 and 87 are now pending in the application.

### ***Election/Restrictions***

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1, 2, 6, 9, 10, 13, 14, 17, 18, 20, 21, 57, 65-67, 71, 72, 81, 82 and 87 drawn to compounds of formula 1 where A1 represents aryl group, A2 represents structure (ii) or (v), Z represents carbonyl or thiocarbonyl, X, Y, V and W are absent, R1 and R2 represent H, alkyl, alkenyl or alkynyl, pharmaceutical compositions containing these compounds and a method of treating hepatitis C infection using these compounds, classified in class 564, subclass 26.
- II. Claims 1, 2, 6, 7, 9, 10, 13, 14, 17, 18, 20, 21, 40-67, 71-82 and 87, drawn to compounds of formula 1 other than defined above for group I, pharmaceutical compositions containing these compounds and a method of treating hepatitis C infection using these compounds, classified in classes 540, 544, 546, 548 and 549.

4. The inventions I and II as defined above are patentably distinct, each from the other since they are structurally so divergent that a reference showing compounds of invention I would not render compounds of invention II prima facie obvious. Search required for compounds of invention I in class 564 is not the same search required for compounds of invention II in classes 540, 544, 546, 548 and 549 and therefore, constitutes a burdensome search.

5. During a telephone conversation with the applicant's attorney, Ms. Leslie-Anne Horvath on April 26, 2004, a provisional election was made with traverse to prosecute the invention of group 1 ( elected compound 142 on page 102 ), claims 1, 2, 6, 9, 10, 13, 14, 17, 18, 20, 21, 57, 65-67, 71, 72, 81, 82 and 87. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7, 40-56, 58-64 and 73-80 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. It is of note that group II is subject to further restriction based on the values of variables A1, A2, X, Y, Z, V, W, R1 and R2 in the future applications.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public

7. Claims 1, 2, 6, 9, 10, 13, 14, 17, 18, 20, 21, 57, 65-67, 71, 72, 81 and 82 are rejected under 35 U.S.C. 102(b) as being anticipated by Rasmussen ( Synthesis).

Rasmussen discloses improved procedures for the preparation of cycloalkyl, arylalkyl and arylthioureas. The compounds no. 22, 23 and 36 ( see table 1 on page 457 ) disclosed by Rasmussen anticipate the instant claims when Z represents carbonyl group in the instant compounds of formula 1.

8. Claims 1, 2, 6, 9, 10, 13, 14, 17, 18, 20, 21, 57, 65-67, 71, 72, 81 and 82 are rejected under 35 U.S.C. 102(b) as being anticipated by Chou ( U.S. Patent no. 4,638,088).

Chou discloses pesticidal biphenyloxy and biphenylalkoxy aryl acyl urea compounds. The compound no. 29 ( see table 1 in columns 11 and 12 ) disclosed by Chou anticipates the instant claims when Z represents carbonyl group in the instant compounds of formula 1.

9. Claims 1, 2, 6, 9, 10, 13, 14, 17, 18, 20, 21, 57, 65-67, 71, 72, 81 and 82 are rejected under 35 U.S.C. 102(b) as being anticipated by Brouwer ( U.S. Patent no. 4,350,706).

Brouwer discloses urea and thiourea compounds and insecticidal compositions. The compounds no. 144 and 145 ( see column 8 ) disclosed by Brouwer anticipates the instant claims when Z represents thiocarbonyl group in the instant compounds of formula 1.

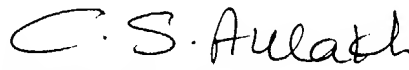
10. Claims 1, 2, 6, 9, 10, 13, 14, 17, 18, 20, 21, 57, 65-67, 71, 72, 81, 82 and 87 are objected as containing non-elected subject matter.

11. Any inquiry concerning this communication or earlier communications from the

(571)272-0678. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571)272-0699. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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Art Unit 1625